Advanced Clean Vehicles Program

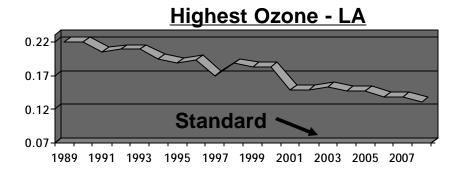
Setting the Course for Cleaner Vehicles: 2014-2050

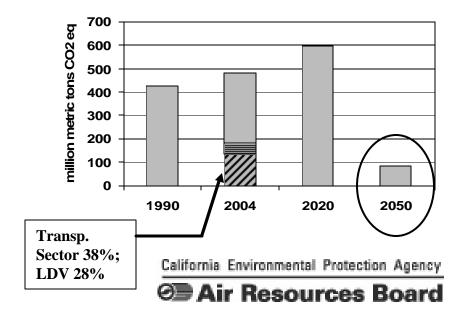
Tom Cackette
California Air Resources Board

Goals

 Continue progress toward ozone attainment

- Reduce localized exposure
 - PM, toxics
- Reduce GHG emissions
 - 80% by 2050





Coordinated Advanced Vehicle Standards

Standards	Timeframe	Objective
Criteria pollutants: HC, NOx, PM	2014-2022	Cleanest vehicles by attainment date
Greenhouse gas: CO ₂ , CH ₄ , N ₂ O, HFC, BC	2017-2025	50+% reduction from baseline
ZEV: Ultra-low carbon emissions and fuels	2018-2025	Commercialize ZEVs for increased market share 2025 on
Clean fuels outlet	~2015+	Establish fueling infrastructure until market established

California Environmental Protection Agency

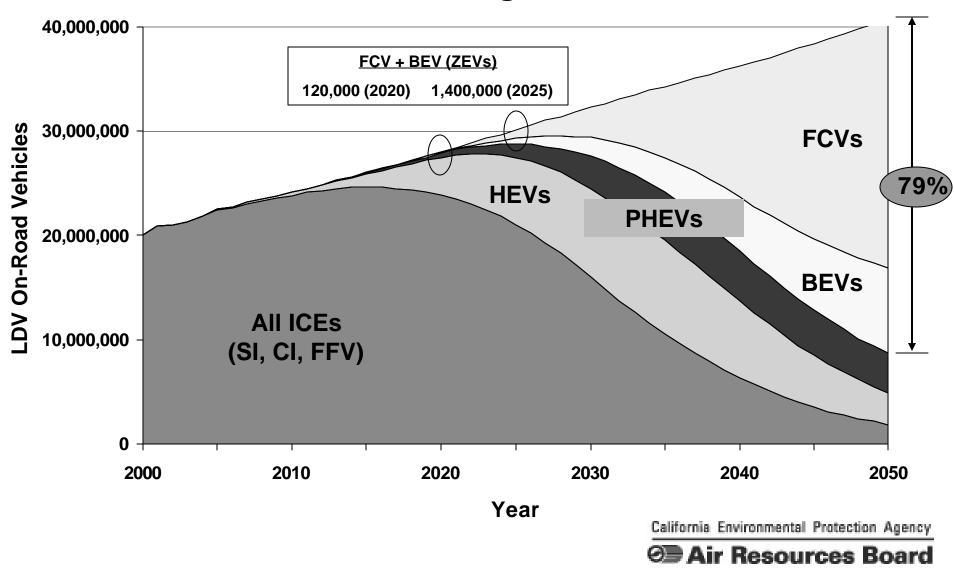


Advantages of this Approach

- One program to address environmental problems
- Builds on past successful pioneering CA programs
- Continues progress towards goals
- Sets clear targets for 2025
- Lays foundation for next generation of clean vehicles
- Consistent with pathways that achieve 2050 GHG goal
 - Need to start now to meet goal

One Pathway to 2050

On-Road Passenger Vehicles



More Advantages of this Approach

- Performance based standards
 - Maintain consumer choice
 - Build on existing and emerging technologies
 - e.g. HEVs, light weight materials and designs
- Fuel savings typically offset costs
- Energy security from moving away from petroleum
 - Supports initial fueling infrastructure
- Adaptable to nationwide program